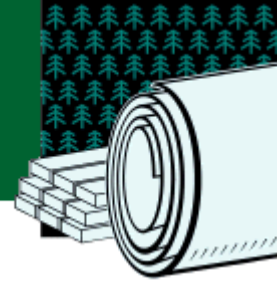


FOREST PRODUCTS

Project Fact Sheet



THE LATERAL CORRUGATOR

BENEFITS

- Decreased raw material costs
- Reduced drying energy
- Reduced fiber consumption by 1.6 million tons per year
- Stronger corrugated boxes

APPLICATIONS

Approximately 38% of all boxes require stacking strength; this process can be applied to any box for which stacking strength is important. Capital and operating costs for the Lateral Corrugator are expected to be similar to a conventional corrugator.

New Method to Corrugate Boxes Will Significantly Increase Box Strength

This project involves a new device to cut the cost of manufacturing corrugated boxes. Currently, manufacturers corrugate boxes with the flute direction (the load-bearing direction) perpendicular to the machine direction (MD). A corrugator that aligns corrugations with the MD can increase box compression strength by 30%. Stronger boxes cut raw material costs, allowing manufacturers to use 15% less fiber for a corrugated box of the same strength.

Because manufacturers will be using thinner paper for boxes of the same strength, the lateral corrugator will reduce drying energy requirements. The technology will also reduce sludge and greenhouse emissions by reducing fiber consumption.



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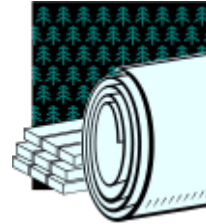
PROJECT DESCRIPTION

Goal: Build and demonstrate a 24-inch wide prototype and make "lateral" board for evaluation.

During the first phase of the project, researchers will build the prototype. United Container Machinery will demonstrate the feasibility of the process through a laboratory-scale model. Once the first phase is complete, researchers will conduct trials in order to evaluate board performance for a wide range of paper grades. Collaborators from the Institute of Paper Science and Technology (IPST) will design, supervise, and analyze the testing. The last phase of the project will involve designing a commercial-scale Lateral Corrugator. Any design flaws in the prototype will also be addressed.

PROGRESS & MILESTONES

- Experimental trials conducted at IPST showed increased box compression strength.
- Researchers are currently designing the prototype and hope to examine commercial-scale demonstration possibilities based on laboratory results.



PROJECT PARTNERS

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April 2001